REMARKS

This Response is filed in response to the Office Action mailed September 9, 2005. Claims 1-32 are pending in this application. Claims 1-32 were rejected by the Office Action mailed September 9, 2005. Claims 23 and 27 were rejected under 35 U.S.C. § 112 for lack of antecedent basis. Claims 1-3, 5-10, and 12-32 were rejected under 35 U.S.C. § 102(e) as being anticipated by US Patent No. 6,002,184 to Delson et al (hereinafter "Delson"). Claims 4 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Delson in view of the application's admitted prior art. Claims 10, 20, 29 and 30 were objected to for informalities in the claim language.

Applicant has amended claims 10, 20, 23, 27, 29, and 30. Applicant has amended the specification and the drawings. No new matter is added by these amendments. Support for the amendments can be found in the specification and claims as filed.

Applicant respectfully traverses Examiner's rejections and requests reconsideration of the Application in light of the amendments above and the remarks below.

Amendments in the Drawings

The Examiner objected to Figure 2 for failing to include label 59 that was referenced in paragraph 32 of the specification. Applicant has amended Figure 2 to include previously omitted element label 59.

The Examiner objected to Figure 3 for including labels 107a and 107b that were not referenced in the specification.. Applicant has amended Figure 3 to remove previously included element labels 107a and 107b.

The Examiner objected to Figure 6 for failing to include labels 200 and 204 that were referenced in paragraphs 64 and 68, respectively, of the specification. Applicant has amended Figure 6 to include previously omitted element label 200 and previously omitted element 204.

The Examiner objected to Figure 10 for failing to include label 356 that was referenced in paragraph 86 of the specification. Applicant has amended Figure 10 to include previously omitted element label 356.

Amendments in the Specification

The Examiner objected to labels 105a and 105b being included in the figures but not referenced within the specification. Applicant has included reference to labels 105a and 105b. Further, Applicant has clarified the reference to figure labels 104a and 104b in the same paragraph.

The Examiner objected to label 256 being included in the figures, but not referenced within the specification. Applicant has included reference to label 256 within the specification.

The Examiner objected to the Abstract of the Disclosure for the use of "forces oil" instead "forces on." Applicant has amended the Abstract of the Disclosure.

The Examiner objected to the failure to include a full application details for a co-pending patent application. Applicant has amended the application to include the full application details.

The Examiner objected to the failure to include a full application details for a co-pending patent application. Applicant has amended the application to include the full application details.

The Examiner objected to the specification for a misspelled term within the specification – "point Mint" should have read "point Min2." The specification has been amended to correct the misspelling.

The Examiner objected to the specification for a misspelled term within the specification – "raw sensor range arid" should have read "raw sensor range and." The specification has been amended to correct the misspelling.

At the Examiner's request, Applicant has reviewed the specification and has noted a misspelling in paragraph 88, which is corrected by the present amendment.

Claims 10, 20, 29 and 30 – Objections

Applicant has amended claims 10, 20, 29, and 30 to address the informalities noted in the Office Action. No new matter is added by these amendments. Applicant respectfully requests the Examiner withdraw the objections to claims 10, 20, 29 and 30.

Claims 23 and 27 – § 112

The Office Action rejected claims 23 and 27 under 35 U.S.C. § 112 as some elements lacked antecedent basis. Claims 23 and 27 have been amended and all elements now have proper antecedent basis. Applicant respectfully requests the Examiner withdraw the rejections of claims 23 and 27.

Claims 1-3 and 5-7 – § 102(e)

The rejections of claims 1-3 and 5-7 under 35 U.S.C. § 102(e) as being anticipated by Delson are respectfully traversed.

To anticipate a claim under 35 U.S.C. § 102(e), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Delson fails to anticipate claim 1 at least because Delson does not disclose "outputting an output signal comprising an adjusted raw sensor value" as recited in claim 1. Specifically, Delson does not disclose adjusting raw sensor values and, therefore, does not disclose "outputting an output signal comprising an adjusted raw sensor value." Therefore, Delson fails to disclose each and every element of claim 1. As such, claim 1 is not anticipated by Delson at least for the reasons given above.

Therefore, Applicant respectfully request the Examiner withdraw the rejection of claim 1. As claims 2, 3 and 5-7 depend from and further limit claim 1, Applicant respectfully asserts that claims 2, 3 and 5-7 are patentable over Delson for at least the same reasons. Applicant respectfully requests the Examiner withdraw the rejections of claims 2, 3 and 5-7.

Claims 8-10 and 12-15 – § 102(e)

The rejections of claims 8-10 and 12-15 under 35 U.S.C. § 102(e) as being anticipated by Delson are respectfully traversed.

To anticipate a claim under 35 U.S.C. § 102(e), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

As pointed out above, Delson fails to disclose "outputting an output signal comprising an adjusted raw sensor value" as recited in claim 1. Claim 8 recites "a device comprising ... a processor, operable to: ... output an output signal comprising an adjusted raw sensor value." As Delson failed to disclose "outputting an output signal comprising an adjusted raw sensor value," it likewise fails to disclose "a device comprising ... a processor, operable to: ... output an output signal comprising an adjusted raw sensor value." Therefore, Delson does not disclose each and every element of claim 8. As such claim 8 is not anticipated by Delson for at least the reasons given above.

Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claim 8. As Claims 9, 10, and 12-15 depend from and further limit claim 8, Applicant respectfully asserts that claims 9, 10, and 12-15 are patentable over Delson for at least the same reasons. Applicant respectfully requests the Examiner withdraw the rejections of claims 9, 10, and 12-15.

Claims 16-25 – § 102(e)

The rejections of claims 16-25 under 35 U.S.C. § 102(e) as being anticipated by Delson are respectfully traversed.

To anticipate a claim under 35 U.S.C. § 102(e), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Delson does not disclose "filtering the raw sensor value for overshoot sensor values occurring at limits to the range of motion of the manipulandum" as recited in claim 16. The Office Action cited column 46, lines 19-47 which relate to increased magnetic forces at the limits of the range of motion, which is not "filtering the raw sensor value for overshoot sensor values occurring at limits to the range of motion of the

manipulandum." Specifically, Delson does not disclose filtering raw sensor values and, therefore, does not disclose "filtering the raw sensor value for overshoot sensor values occurring at limits to the range of motion of the manipulandum." Therefore, Delson does not disclose each and every element of claim 16, and therefore fails to anticipate claim 16.

Applicant respectfully requests the Examiner withdraw the rejection of claim 16. As claims 17-25 depend from and further limit claim 16, Applicant respectfully asserts that claims 17-25 are patentable over Delson for at least the reasons given above. Applicant respectfully requests the Examiner withdraw the rejections of claims 17-25.

Claims 26-32 – § 102(e)

The rejections of claims 26-32 under 35 U.S.C. § 102(e) as being anticipated by Delson are respectfully traversed.

To anticipate a claim under 35 U.S.C. § 102(e), a reference must disclose each and every element of the claim. *See* M.P.E.P. § 2131.

Delson fails to anticipate claim 26 at least because Delson does not disclose "a method comprising ... outputting an output signal comprising a normalized raw sensor value, wherein the normalized raw sensor value is based at least in part on a normalized range of motion." Specifically, Delson does not disclose normalizing raw sensor values and, therefore, does not disclose "a method comprising ... outputting an output signal comprising a normalized raw sensor value, wherein the normalized raw sensor value is based at least in part on a normalized range of motion." As such, Delson does not disclose each and every element of claim 26 and therefore does not anticipate claim 26 for at least the reasons given above.

Therefore, Applicant respectfully requests the Examiner withdraw the rejection of claim 26. As claims 27-32 depend from and further limit claim 26, Applicant respectfully asserts that claims 27-32 are patentable over Delson for at least the reasons given above. Applicant respectfully requests the Examiner withdraw the rejections of claims 27-32.

Claims 4 and 11 – § 103(a)

The rejections of claims 4 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Delson in view of admitted prior art are respectfully traversed.

To support a rejection under 35 U.S.C. § 103(a), the combined references must teach or suggest each and every element of the claim. *See* M.P.E.P. § 2142.

Claim 4 depends from independent claim 1, and claim 11 depends from independent claim 8. The Office Action states that the rejection for claim 11 uses the same reasoning as applied for claim 4.

As pointed out above, Delson fails to disclose all of the elements of claims 1 and 8. Further, paragraph 5 of the specification cited by the Office Action fails to disclose "outputting an output signal comprising an adjusted raw sensor value" as recited in claim 1, and "a device comprising ... a processor, operable to: ... output an output signal comprising an adjusted raw sensor value" as recited in claim 8. Therefore, the combination of Delson in view of paragraph 5 of the specification fails to teach or suggest every element of claims 4 and 11 for at least the reasons given above.

Applicant submits that claims 4 and 11 are patentable over Delson in view of the admitted prior art. Therefore, Applicant respectfully requests the Examiner withdraw the rejections of claims 4 and 11.

Prior Art Made of Record and Not Relied Upon

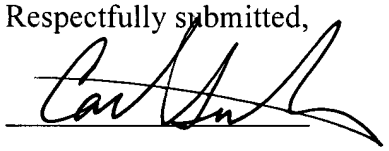
In section 20, the Office Action lists references which were made of record and not relied upon. Applicant respectfully traverses the relevance of these reference as prior art or otherwise, and respectfully reserves the right to present such arguments and other material should the Examiner maintain rejection of Applicant's claims, based upon the references made of record and not relied upon or otherwise.

CONCLUSION

Applicant respectfully asserts that in view of the amendments and remarks above, all pending claims are allowable and Applicant respectfully requests the allowance of all claims.

Should the Examiner have any comments, questions, or suggestions of a nature necessary to expedite the prosecution of the application, or to place the case in condition for allowance, the Examiner is courteously requested to telephone the undersigned at the number listed below.

Respectfully submitted,



Date: 12/9/2005

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Attachments

AMENDMENTS TO THE DRAWINGS

The four attached sheets of formal drawings include changes to Figure 2, Figure 3, Figure 6, and Figure 10. These sheets, which include Figures 2, 3, 6 and 10, replace the original sheets including Figures 2, 3, 6, 10.

In Figure 2, previously omitted element label 59 that is found in paragraph 32 of the specification has been added.

In Figure 3, previously included element labels 107a and 107b that were not referenced in the specification have been removed.

In Figure 6, previously omitted element label 200 and element 204 that are found in paragraphs 64 and 68, respectively, of the specification have been added.

In Figure 10, previously omitted element label 356 that is found in paragraph 86 of the specification has been added.

Attachment: Four Replacement Sheets.
Four Annotated Sheets Showing Changes

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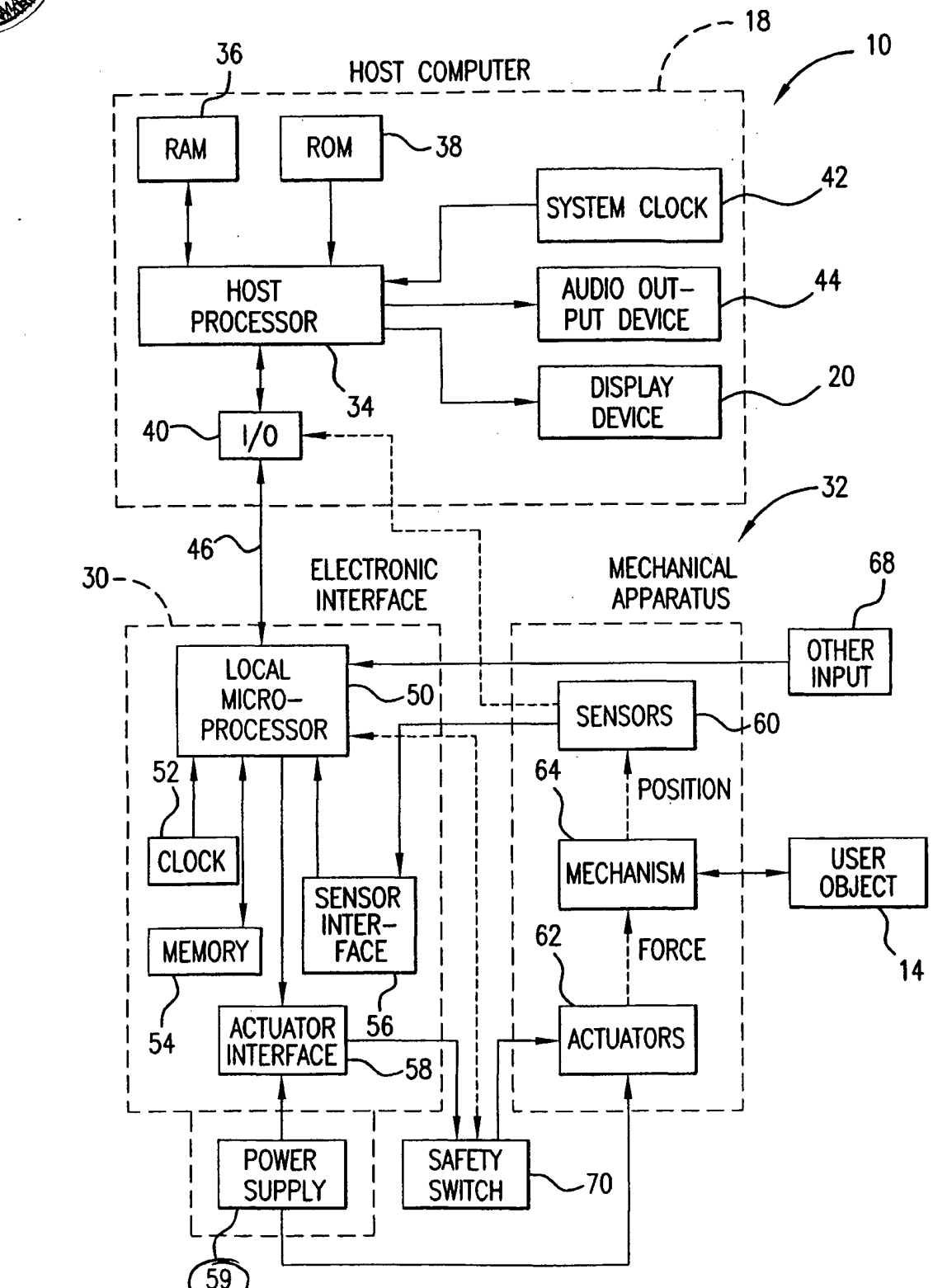

Label 59 added

FIG.2

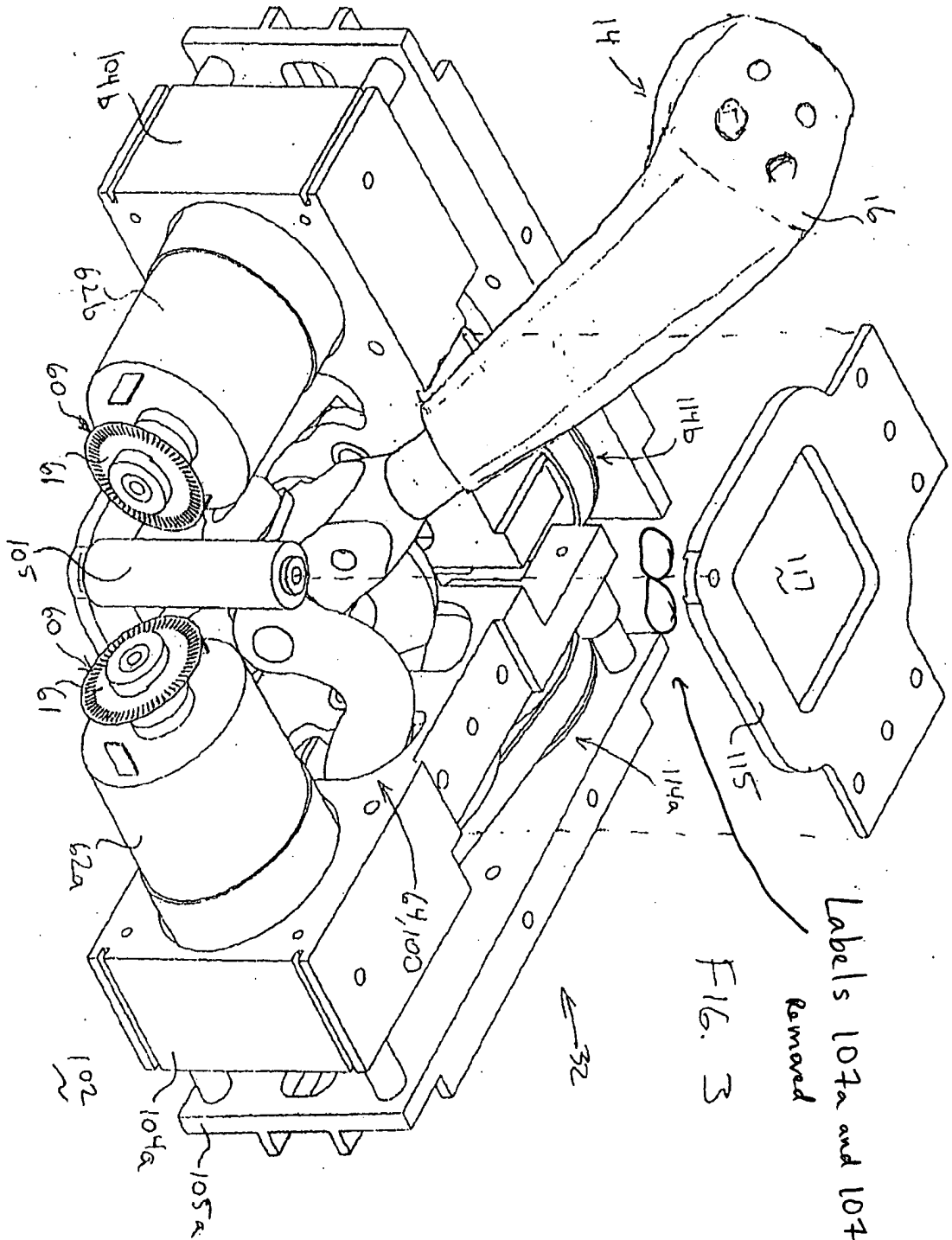
104b
41
16
62b
60
19
101
109
19
62a
104a
104a
115
117
102
104a
105a
32
Labels 107a and 107b
Remand

Fig. 3

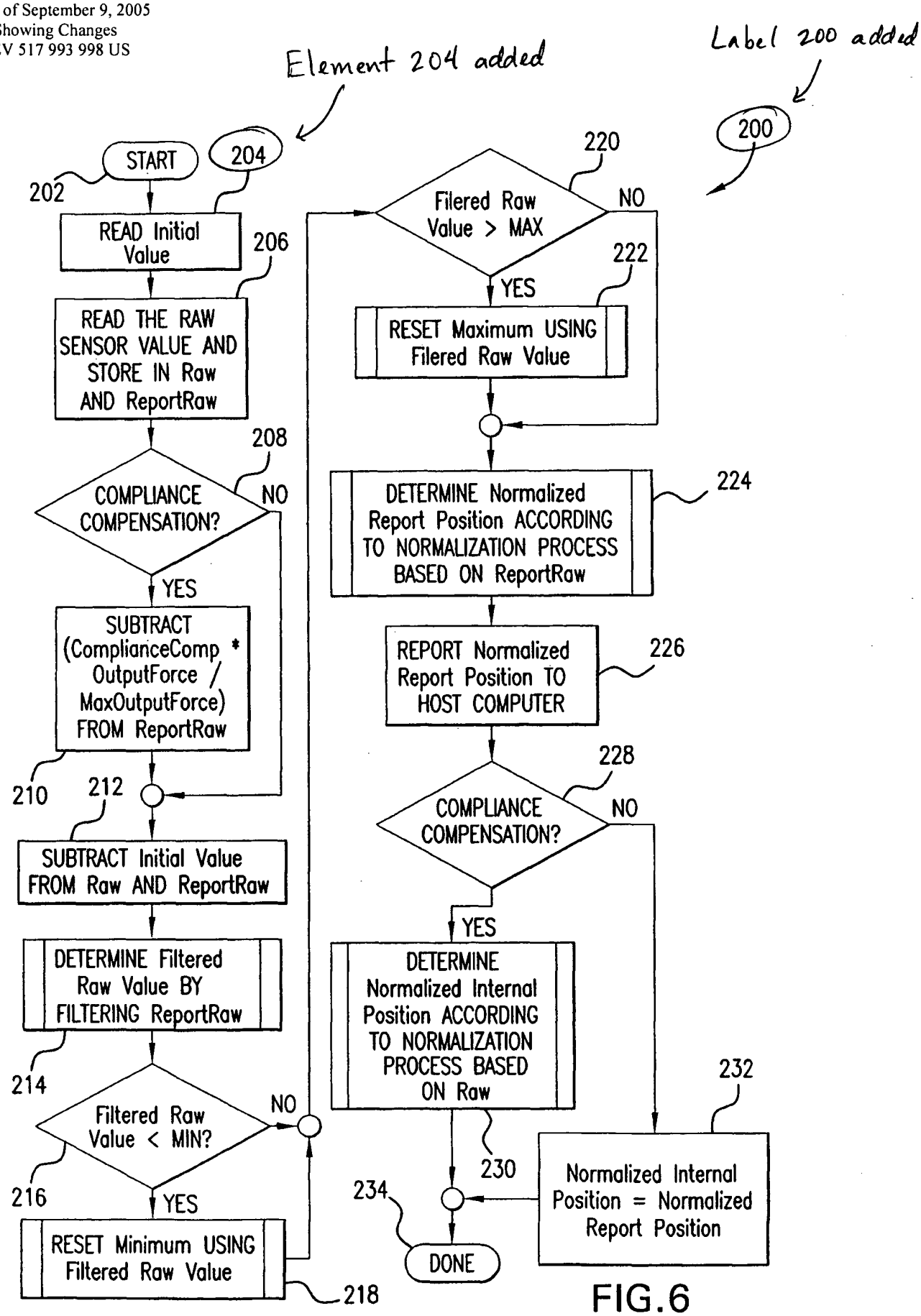
Element 204 added
Label 200 added
200
START
202
204
READ Initial Value
206
READ THE RAW SENSOR VALUE AND STORE IN Raw AND ReportRaw
208
COMPLIANCE COMPENSATION?
NO
YES
SUBTRACT (ComplianceComp * OutputForce / MaxOutputForce) FROM ReportRaw
210
212
SUBTRACT Initial Value FROM Raw AND ReportRaw
DETERMINE Filtered Raw Value BY FILTERING ReportRaw
214
Filtered Raw Value < MIN?
NO
216
YES
RESET Minimum USING Filtered Raw Value
218
220
Filered Raw Value > MAX
NO
YES
222
RESET Maximum USING Filered Raw Value
DETERMINE Normalized Report Position ACCORDING TO NORMALIZATION PROCESS BASED ON ReportRaw
224
REPORT Normalized Report Position TO HOST COMPUTER
226
228
COMPLIANCE COMPENSATION?
NO
YES
DETERMINE Normalized Internal Position ACCORDING TO NORMALIZATION PROCESS BASED ON Raw
230
232
Normalized Internal Position = Normalized Report Position
234
DONE

FIG.6

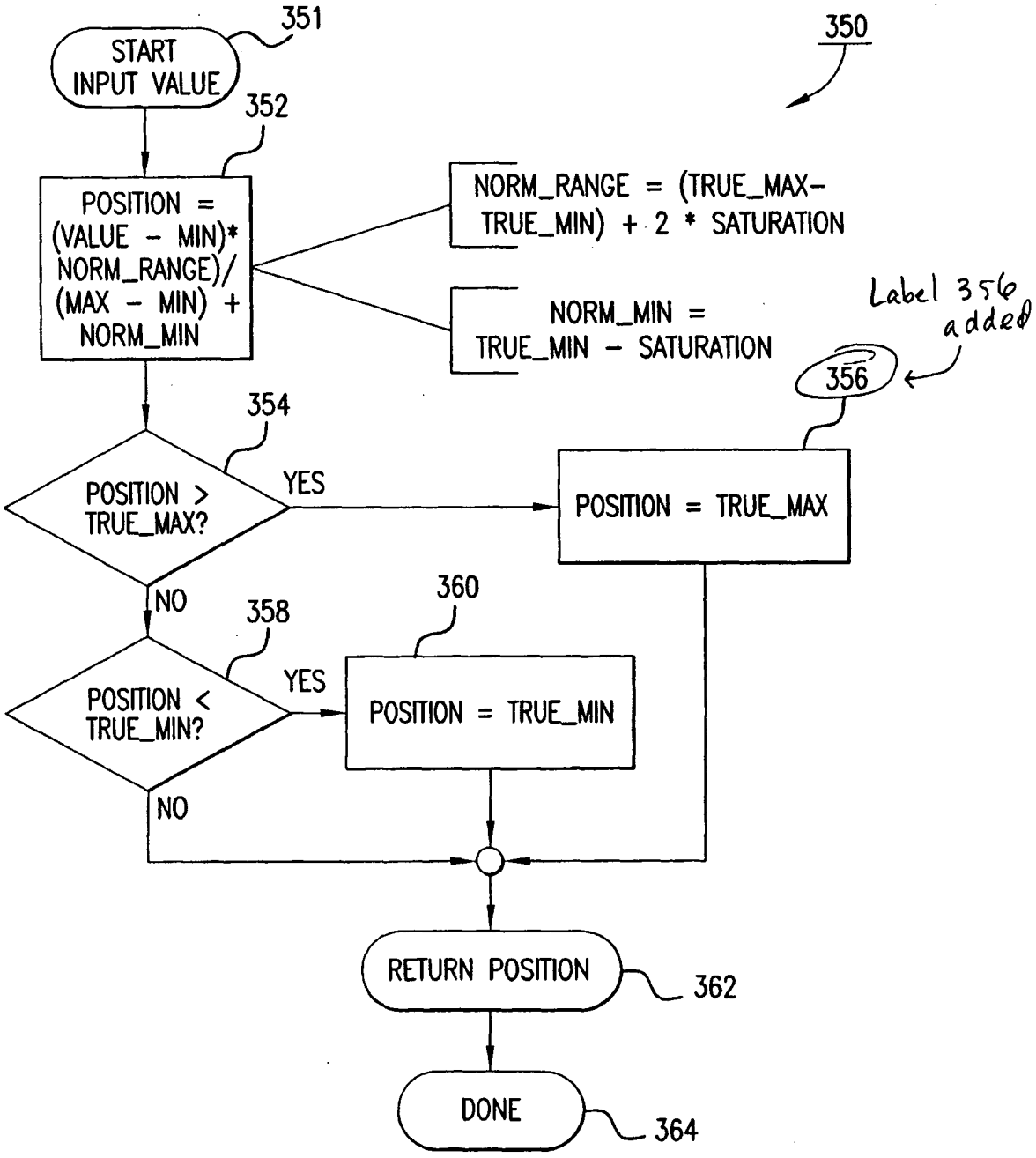
350
351
START
INPUT VALUE
352
POSITION =
(VALUE - MIN)*
NORM_RANGE)/
(MAX - MIN) +
NORM_MIN
NORM_RANGE = (TRUE_MAX-
TRUE_MIN) + 2 * SATURATION
NORM_MIN =
TRUE_MIN - SATURATION
Label 356
added
356
354
POSITION >
TRUE_MAX?
YES
POSITION = TRUE_MAX
NO
358
360
POSITION <
TRUE_MIN?
YES
POSITION = TRUE_MIN
NO
RETURN POSITION
362
DONE
364

FIG.10